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# NASA Procedural Requirements

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 (NASA Only)

## **Subject: Requirements for Packaging, Handling, and Transportation for Aeronautical and Space Systems, Equipment, and Associated Components**

**Responsible Office: Logistics Management Division**[| TOC](#) | [Preface](#) | [Chapter1](#) | [Chapter2](#) | [Chapter3](#) | [AppendixA](#) | [AppendixB](#) | [AppendixC](#) | [ALL](#) |

## **Chapter 3. Supplier Handling and Transportation Requirements**

### **3.1 Classes of Shipping and Handling**

3.1.1 The classes of shipping and handling, defined in Appendix A, shall apply to all equipment, components, and associated parts.

### **3.2 Packing, Handling, and Transportation Record**

3.2.1 A Packaging, Handling, and Transportation Record, NASA Form 1426 ([http://server-mpo.arc.nasa.gov/Services/NEFS/NEF\\_PDFData/NF1426.pdf](http://server-mpo.arc.nasa.gov/Services/NEFS/NEF_PDFData/NF1426.pdf)), or equivalent information shall be developed from engineering data for each Class I item.

3.2.2 Each Center Transportation Officer shall establish procedures to ensure that changes in packaging data, handling, and transportation methods are reflected in amended or revised records in a timely manner.

3.2.3 Information, when reproduced, shall not be altered in size or content.

### **3.3 Approval of Packaging, Handling and Transportation Records**

3.3.1 The NASA Form 1426 ([http://server-mpo.arc.nasa.gov/Services/NEFS/NEF\\_PDFData/NF1426.pdf](http://server-mpo.arc.nasa.gov/Services/NEFS/NEF_PDFData/NF1426.pdf)) (or an equivalent form), shall be submitted and approved by the Center Transportation Officer or delegated to the quality representative of the procuring location, as well as by a designated representative of the procuring activity.

3.3.1.1 Shipment shall not proceed without this approval.

3.3.1.2 Procedures for interim approval in emergency cases shall be as established by the procuring activity.

### **3.4 NASA Critical Space Item Label**

3.4.1 Shipping contractors shall ensure that the NASA Critical Space Item label, NASA Form 1368, is prominently displayed on the exterior of all Class I, Class II, and Class III interior packages and exterior shipping containers to alert handling personnel to the criticality of the item. Its use is intended to ensure special handling by carrier, receiving, and storage personnel in accordance with NPR 6200.1. The label is obtainable from procuring activities in the three different sizes.

3.4.2 Labels only shall be affixed to the exterior container for items not on the Transport Critical Item List but requiring special transportation consideration due to schedule or program constraints.

### **3.5 Monitoring Devices for Shipments**

3.5.1 When use of a monitoring device is indicated or has been recommended and its use authorized by shipper,

such devices shall be of a type and nature that will detect and provide a permanent notation that the packaged contents have been subjected to adverse conditions, such as temperature, shock, or moisture that could impair their ability to perform their principal function in a satisfactory manner.

3.5.1.1 Monitoring devices shall be installed and used in accordance with standard application of the item and in a manner that will permit their observation and inspection with a minimum of assembly or disassembly.

3.5.1.2 The location of devices, including shock-measuring instruments, shall be marked prominently on the exterior container.

3.5.2 Shock measuring instruments shall be used in accordance with applicable standards.

### **3.6 Transportation Planning**

3.6.1 Modes of shipment shall be in accordance with transportation and logistics support plans, implemented in accordance with contractual requirements.

3.6.2 When such direction is not provided in the contract, the mode that shall be employed is one that provides the most reliable protection to the items involved and takes into account the time, schedule, and cost.

3.6.3 The contractor shall establish and implement procedures for the control of premium transportation costs to be incurred, such as special mission airlift, chartered aircraft, exclusive use of carrier equipment, and unusual and excessive accessorial charges.

3.6.4 Upon request, transportation data for items requiring special design transportation and handling equipment, special commercial carrier or Government services, shall be submitted in accordance with the contract. The contractor's format may be used unless otherwise specified.

3.6.4.1 Approval shall be as specified or as otherwise authorized in the contract or by written direction of the contracting officer.

3.6.4.2 Approval shall be obtained prior to shipment from Transportation Officer or designated representative.

3.6.5 All shipments made to out of Continental United States locations shall comply with NPR 2190.1, NASA Export Control Program.

### **3.7 Restraining Systems**

3.7.1 During highway, air, rail, and marine shipments, items in their shipping configuration and skidded and wheeled equipment shall be provided with tie-down and lifting provisions commensurate with their size and weight. Additional safety measures may be required and shall be considered during the design of the restraining system due to peculiarities of the cargo, carrier safety considerations, or accident effects, especially where hazardous materials are involved.

### **3.8 Monitoring of Transportation and Handling Process**

3.8.1 Contractors are responsible for monitoring each class of shipment and shall ensure necessary coordination with the transportation officer of the procuring activity, with carrier representatives, and with transportation officials at the destination to ensure that the following have taken place:

- a. An inspection has been performed prior to shipment to include verification of compliance with the Packaging, Handling, and Transportation Record or equivalent information.
- b. NASA Critical Space Item labels have been affixed to the shipping containers for Class I, II and III items.
- c. Shipment routing requests include special handling and monitoring instructions and provide necessary notification to en route transfer agents.
- d. Advance shipping and handling information is provided to requisite en route parties.
- e. Arrangements are made for escort or courier services as may be necessary.
- f. Transportation, preservation, packaging, handling, and logistics plans included in contract are accomplished.
- g. Class IV items are shipped via the most advantageous commercial transportation means considered to be in the best interest of the Government.

3.8.2 Shippers shall provide Packaging, Handling, and Transportation Records or equivalent information for mission-essential items to destination transportation officers to ensure proper receiving, damage-free handling and storage, and essential protection through redistribution and final use.

3.8.3 Receiving organizations shall provide originating transportation officers with timely advice concerning losses in transit or handling due to inadequate packaging protection or failure to follow established transportation and handling procedures.

3.8.4 Prior to shipping radioactive materials regulated by the Nuclear Regulatory Commission or any State agency, those making shipments shall ensure that the designated receiving facility is authorized to receive the type, form, and quantity of radioactive material to be transferred.

3.8.5 The contractor shall maintain carrier performance data when service issues are encountered with carriers.

3.8.5.1 Data shall include any corrective actions taken by the carrier in responding to service failures.

3.8.5.2 The contractor shall submit carrier performance data to the Center Transportation Officer annually, by October 31 of each calendar year.

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